

WHAT IS CLAIMED IS:

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1. A camera control system comprising:
display means for displaying an image sensed by a
5 camera, the displayed image corresponding to an image signal
output from the camera;

detection means for detecting a figure on a display
surface on which the image is being displayed by said
display means;

10 output means for outputting a command for controlling
the camera on the basis of the figure detected by said
detection means;

control means for controlling the camera on the basis
of the camera control command output from said output means.

15 2. A camera control system according to Claim 1,
wherein said detection means further detects an action of
depicting the figure on the display surface of said display
means.

20 3. A camera control system according to Claim 2,
wherein said output means outputs a control command for at
least one of pan control, tilt control, and zoom control of
the camera.

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an output step of outputting a command for controlling the camera on the basis of the figure detected in said detection step.

5 36. A method according to Claim 35, further comprising a display step of displaying the image formed by the camera on the basis of an image signal output from the camera.

10 ²⁰~~37.~~ A method according to Claim ¹⁹~~36~~, further comprising a control step of controlling the camera on the basis of the camera control command output in said output step.

15 ^{Sub. A2} 38. A method according to Claim 37, wherein said detection step comprises detecting an action of depicting a figure on the display surface in said display step.

20 ²⁰~~38.~~ A method according to Claim ²¹~~38~~, wherein said output step comprises outputting a control command for at least one of pan control, tilt control, and zoom control of the camera.

25 ²³~~39.~~ A method according to Claim ²⁰~~39~~, wherein said output step comprises outputting a control command for at least one of pan control, tilt control, and zoom control of the camera.

7. A camera control system according to Claim 4, wherein if an action of depicting a segment along the direction from the bottom to the top of the display surface of said display means is detected by said detection means, then said output means outputs a control command for upward tilt control of the camera according to the length of the

segment.

8. A camera control system according to Claim 4,
wherein if an action of depicting a segment along the
5 direction from the top to the bottom of the display surface
of said display means is detected by said detection means,
then said output means outputs a control command for
downward tilt control of the camera according to the length
of the segment.

9. A camera control system according to Claim 4,
wherein if a depiction of an arrow on the display surface of
said display means is detected by said detection means, then
said output means outputs a control command for control of
15 at least one of pan and tilt of the camera according to the
direction of the detected arrow.

10. A camera control system according to Claim 9,
wherein said output means determines a controlled amount of
20 at least one of the pan and tilt of the camera according to
a length of the detected arrow.

11. A camera control system according to Claim 4,
wherein if a depiction of a substantially circular figure on
25 the display surface of said display means is detected by

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said detection means, then said output means outputs a command for controlling the zoom ratio according to a size of the substantially circular figure detected.

5 12. A camera control system according to Claim 11,
wherein if a depiction of a substantially circular figure on
the display surface of said display means is detected by
said detection means, then said output means further outputs
a control command for performing at least one of pan and
10 tilt of the camera such that an image displayed at a center
of the substantially circular figure is positioned at a
center of the display surface.

13. A camera control system according to Claim 4,
15 wherein if a depiction description of a substantially
rectangular figure on the display surface of said display
means is detected by said detection means, then said output
means outputs a command for controlling the zoom ratio
according to a size of the substantially rectangular figure
20 detected.

14. A camera control system according to Claim 11,
wherein if a depiction of a substantially rectangular figure
on the display surface of said display means is detected by
25 said detection means, then said output means further outputs

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a control command for performing at least one of pan and tilt of the camera such that an image displayed at a center of the substantially rectangular figure is positioned at a center of the display surface.

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15. A camera control system according to Claim 4, wherein if a depiction of a crisscross figure on the display surface of said display means is detected by said detection means, then said output means outputs a control command for controlling a zoom ratio in the zoom-out direction according to a size of the crisscross figure detected.

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16. A camera control system according to Claim 15, wherein said output means outputs a control command for performing at least one of pan and tilt of the camera such that an image displayed at a point of intersection of the two segments forming the crisscross figure is positioned at the center of the display surface.

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17. A camera control system according to Claim 4, wherein if an action of depicting a line so as to form one loop is executed on the display surface of said display means, then said output means outputs a control command for terminating control of the camera.

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21. A camera control apparatus according to Claim 18, wherein said output means outputs a control command for at least one of pan control, tilt control, and zoom control of the camera.

22. A camera control apparatus according to Claim 21,
wherein if an action of depicting a segment from right to
left on the display surface of said display means is
5 detected by said detection means, then said output means
outputs a control command for leftward pan control of the
camera according to the length of the segment.

23. A camera control apparatus according to Claim 21,
10 wherein if an action of depicting a segment from left to
right on the display surface of said display means is
detected by said detection means, then said output means
outputs a control command for rightward pan control of the
camera according to the length of the segment.

24. A camera control apparatus according to Claim 21,
wherein if an action of depicting a segment along the
direction from the bottom to the top of the display surface
of said display means is detected by said detection means,
15 then said output means outputs a control command for upward
tilt control of the camera according to the length of the
segment.

25. A camera control apparatus according to Claim 21,
25 wherein if an action of depicting a segment along the

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29. A camera control apparatus according to Claim 28,
wherein if a depiction of a substantially circular figure on
the display surface of said display means is detected by
said detection means, then said output means further outputs
5 a control command for performing at least one of pan and
tilt of the camera such that an image displayed at a center
of the substantially circular figure is positioned at a
center of the display surface.

30. A camera control apparatus according to Claim 21,
wherein if a depiction of a substantially rectangular figure
on the display surface of said display means is detected by
said detection means, then said output means outputs a
command for controlling the zoom ratio according to a size
15 of the substantially rectangular figure detected.

31. A camera control apparatus according to Claim 30,
wherein if a depiction of a substantially rectangular figure
on the display surface of said display means is detected by
20 said detection means, then said output means further outputs
a control command for performing at least one of pan and
tilt of the camera such that an image displayed at a center
of the substantially rectangular figure is positioned at a
center of the display surface.

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32. A camera control apparatus according to Claim 21,
wherein if a depiction of a crisscross figure on the display
surface of said display means is detected by said detection
means, then said output means outputs a control command for
5 controlling a zoom ratio in the zoom-out direction according
to a size of the crisscross figure detected.

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33. A camera control apparatus according to Claim 32,
wherein said output means outputs a control command for
10 performing at least one of pan and tilt of the camera such
that an image displayed at a point of intersection of the
two segments forming the crisscross figure is positioned at
the center of the display surface.

34. A camera control apparatus according to Claim 21,
wherein if an action of depicting a line so as to form one
loop is executed on the display surface of said display
means, then said output means outputs a control command for
terminating control of the camera.

35. A method of controlling a camera control system
comprising:

a detection step of detecting a figure on a display
surface on which an image formed by a camera is being
25 displayed; and

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41. A method according to Claim 40, wherein if an action of depicting a segment from right to left on the display surface in said display step is detected in said
5 detection step, then a control command for leftward pan control of the camera according to the length of the segment is output in said output step.

42. A method according to Claim 40, wherein if an
10 action of depicting a segment from left to right on the display surface in said display step is detected in said detection step, then a control command for rightward tilt control of the camera according to the length of the segment is output in said output step.

43. A method according to Claim 40, wherein if an
15 action of depicting a segment along the direction from the bottom to the top of the display surface in said display step is detected in said detection step, then a control
20 command for upward tilt control of the camera according to the length of the segment is output in said output step.

44. A method according to Claim 40, wherein if an
25 action of depicting a segment along the direction from the top to the bottom of the display surface in said display

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step is detected in said detection step, a command for downward tilt control of the camera is output in said output step, and the length of the segment is output in said output step.

45. A method according to Claim 44, wherein a picture of an arrow on the display screen is detected in said detection step, a command for control of at least one of the horizontal and vertical tilt of the camera according to the direction of the arrow is output in said output step.

46. A method according to Claim 45, wherein in said output step, a controlled amount of at least one of the horizontal and vertical tilt of the camera is determined according to the direction of the detected arrow.

47. A method according to Claim 45, wherein a picture of a substantially circular object on the display screen is detected in said detection step, then a command for controlling the horizontal and vertical tilt of the camera according to the size of the substantially circular object is output in said output step.

48. A method according to Claim 45, wherein a picture of a substantially circular object on the display screen is detected in said detection step, then a command for controlling the horizontal and vertical tilt of the camera according to the size of the substantially circular object is output in said output step.

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47. A method according to Claim 40, wherein if a depiction of a substantially circular figure on the display surface in said display step is detected in said detection step, then a command for controlling the zoom ratio according to the size of the substantially circular figure detected is output in said output step.

48. A method according to Claim 47, wherein if a depiction of a substantially circular figure on the display

49. A method according to Claim 40, wherein if a depiction of a substantially rectangular figure on the display surface in said display step is detected in said detection step, then a command for controlling the zoom ratio according to a size of the substantially rectangular figure detected is output in said output step.

50. A method according to Claim 49, wherein if a depiction of a substantially rectangular figure on the display surface in said display step is detected in said detection step, then a control command for performing at least one of pan and tilt of the camera such that an image displayed at a center of the substantially rectangular figure is positioned at a center of the display surface is also output in said output step.

51. A method according to Claim 40, wherein if a depiction of a crisscross figure on the display surface in

52. A method according to Claim 51, wherein a control command is output to perform at least one of pan and tilt of the camera such that an image displayed at the point of intersection of the two segments forming the crisscross figure is positioned at the center of the display surface.

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53. A method according to Claim 40, wherein if an action of depicting a line so as to form one loop is executed on the display surface in said display step, a control command for terminating control of the camera is output in said output step.

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54. A storage medium for storing a program for causing a computer to control a camera control apparatus, the stored program causing the computer to cause the apparatus to perform the following functions:

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displaying an image formed by a camera, the displayed image corresponding to an image signal output from the camera;

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detecting a figure on a display surface on which the

outputting a command for controlling the camera on the basis of the detected figure.

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58. A storage medium according to Claim 57, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of, if an action of depicting a segment from right to left on the display

surface is detected, outputting a control command for leftward pan control of the camera according to the length of the segment.

5 59. A storage medium according to Claim 57, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of, if an action of describing a segment from left to right on the display surface is detected, outputting a control command for
10 rightward pan control of the camera according to the length of the segment.

60. A storage medium according to Claim 57, wherein the stored program causes the computer to cause the camera
15 control apparatus to perform the function of, if an action of depicting a segment along the direction from the bottom to the top of the display surface is detected, outputting a control command for upward tilt control of the camera according to the length of the segment.

20 61. A storage medium according to Claim 57, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of, if an action of depicting a segment along the direction from the top to
25 the bottom of the display surface is detected, outputting a

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62. A storage medium according to Claim 57, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of, if a depiction of an arrow on the display surface is detected, outputting a control command for control of at least one of pan and tilt of the camera according to the direction of the detected arrow.

63. A storage medium according to Claim 62, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of determining a controlled amount of at least one of the pan and tilt of the camera according to the length of the detected arrow.

64. A storage medium according to Claim 57, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of, if a description of a substantially circular figure on the display surface is detected, outputting a command for controlling the zoom ratio according to the size of the substantially circular figure detected.

65. A storage medium according to Claim 64, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of, if a depiction of a substantially circular figure on the display surface is detected, outputting a control command for performing at least one of pan and tilt of the camera such that an image displayed at a center of the substantially circular figure is positioned at a center of the display surface.

10 66. A storage medium according to Claim 57, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of, if a depiction of a substantially rectangular figure on the display surface is detected, outputting a command for controlling the zoom ratio according to the size of the substantially rectangular figure detected.

20 67. A storage medium according to Claim 66, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of, if a depiction of a substantially rectangular figure on the display surface is detected, outputting a control command for performing at least one of pan and tilt of the camera such that an image displayed at a center of the substantially rectangular figure is positioned at a center of the display surface .

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68. A storage medium according to Claim 57, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of, if description
5 of a crisscross figure on the display surface is detected, outputting a control command for controlling the zoom ratio in the zoom-out direction according to a size of the crisscross figure detected.

10 69. A storage medium according to Claim 68, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of outputting a control command to perform at least one of pan and tilt of the camera such that an image displayed at a point of
15 intersection of the two segments forming the crisscross figure is positioned at the center of the display surface.

20 70. A storage medium according to Claim 57, wherein the stored program causes the computer to cause the camera control apparatus to perform the function of, if an action of depicting a line so as to form one loop is executed on the display surface, outputting a control command for terminating control of the camera.

25 71. A camera control system comprising:

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a monitor for displaying an image sensed by a camera,
the displayed image corresponding to an image signal output
from the camera;

5 a detector for detecting a gestural sign on a display
surface on which the image is being displayed by said
monitor;

an interface for outputting a command for controlling
the camera on the basis of the gestural sign detected by
said detector;

10 a controller for controlling the camera on the basis of
the camera control command output from said output means.

72. A camera control system according to Claim 71,
wherein said detector detects an action of the gestural sign
15 on the display surface of said monitor.

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